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10/533,747	11/09/2006	Pinchas Shalev	12704378	7965
44909	7590	03/02/2010	EXAMINER	
PRTSI			RALIS, STEPHEN J	
P.O. Box 16446			ART UNIT	
Arlington, VA 22215			PAPER NUMBER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/533,747

Applicant(s)

SHALEV ET AL.

Examiner

STEPHEN J. RALIS

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 16-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 16-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Paper No(s)/Mail Date _____
- 6) ☐ Other: _____
- 7) ☐ Notes of Informal Patent Application
- 8) ☐ Paper No(s)/Mail Date 2/11/2010

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Applicant is respectfully requested to provide a location within the disclosure to support any further amendments to the claims due to when filing an amendment an applicant should show support in the original disclosure for new or amended claims. See MPEP § 714.02 and § 2163.06 ("Applicant should specifically point out the support for any amendments made to the disclosure.").

Response to Amendment/Arguments

3. Applicant's arguments with respect to claims 1-13 and 16-29 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
7. Claims 1, 4-11, 13, 16-22 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Solvinto (French Publication No. FR 2532878 A) in view of Shalev et al. et al. (International Publication No. WO 03/009976 A1).

Solvinto discloses a hair cutting head for use in a hair cutting apparatus and a method of cutting hair growing from the skin (see Figures 1-7), comprising: an elongated heated wire (heated metal wire or strip; Abstract) suitable for heating hair growing from a skin surface (Abstract); and at least one blade (one cutting blade), placed at one side of the elongated heated wire (one blade carrying a metal wire or strip; Abstract), the at least one blade being situated and configured to cut the hair which has been heated by the heated wire, wherein the wire is heated to a temperature of at least 50°C (heated between 700 and 1000 °C; Abstract).

With respect to the limitation of "at least one blade, placed at one side of the elongated heated wire, the at least one blade being situated and configured to cut the hair which has been heated by the heated wire", Solvinto explicitly teaches a clamping blade and a cutting blade. The cutting blade has, thereon, a heating element placed within a slot on the blade itself (page 10, bottom – page 11, line 4). Therefore since Solvinto discloses a cutting blade and a clamping blade with the cutting blade having a heating wire (metallic wire 4) placed at one side of the blade and the cutting blade with the heating wire (metallic wire 4) being situated in the apparatus for explicitly cutting hair which has been heated by the heated wire (metallic wire 4), Solvinto fully meets "at least one blade, placed at one side of the elongated heated wire, the at least one blade being situated and configured to cut the hair which has been heated by the heated wire" given its broadest reasonable interpretation.

With respect to the limitations of claim 5, Solvinto further discloses the elongated heated wire (heated metal wire or strip; Abstract) being heated to a temperature between 700 and 1000 °C when the apparatus is brought into contact with a skin surface to cut hair (Abstract). Therefore, Solvinto fully meets "wherein said wire is heated when said cutting head comes in contact with a skin surface" given its broadest reasonable interpretation.

In addition, Solvinto discloses the wire being in the range of 0.1 and 0.8 mm (page 5-6; English translation) as well as the metal wire or blade being electrically heated by alternating current or from a battery.

Solvinto discloses all of the limitations of the claimed invention, as previously set forth, except for a motion detector adapted to detect motion of the hair cutting head on the skin surface; burning of the skin being prevented by one or more of heating the wire only when motion is detected and removal of the wire from skin contact when motion is not detected; and the elongated heated wire having a diameter between 10 to 1000 micrometers.

However, a motion detector adapted to detect motion of the hair cutting head on the skin surface and burning of the skin being prevented by one or more of heating the wire only when motion is detected and removal of the wire from skin contact when motion is not detected is known in the art. Shalev et al., for example, teach a motion detector (detectors 1070/1062 with either optical, 1020, or mechanical, 1064, means of detecting motion/velocity; page 17, line 26 – page 20, line 14) that provides power to the heating element when motion/velocity is detected (page 6, lines 27-32; page 7, line 18 – page 8, line 7; page 17, line 26 – page 20, line 14; page 23, lines 14-32).

Similarly, an elongated heated wire having a diameter between 10 to 1000 micrometers is known in the art. Shalev et al., for example, teach the heating element preferably having a diameter of 0.070 mm, as well as potentially a diameter of 0.02 mm or less, or 0.5 mm or more (page 12, line 30 – page 13, line 3; page 21, lines 10-12).

In addition, Shalev et al. teach such a configuration provides a means to utilize applied heat in a hair removal process without damaging the skin (page 1, lines 7-8; page 2, lines 14-33; whole document). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Solvinto with the heating

of the wire when motion is detected by a motion detector and the heating element having a diameter between diameter between 10 to 1000 micrometers of Shalev et al. in order to provide a means to prevent damage to the skin when utilizing a heating application in a hair removal system.

8. Claims 1-13 and 16-29 rejected under 35 U.S.C. 103(a) as being unpatentable over Iderosa (U.S. Patent No. 5,065,515) in view of Solvinto (French Publication No. FR 2532878 A), Ringler et al. (U.S. Patent No. 20020151881) and Shalev et al. et al. (International Publication No. WO 03/009976 A1).

Iderosa discloses a hair cutting head for use in a hair cutting apparatus and a method of cutting hair growing from the skin, (see Figure 3), (shaving system; Title) comprising: an elongated heated wire (heating element 15) suitable for heating hair growing from a skin surface (column 3, line 52 - column 4, line 18); and at least one blade (46), placed at one side of the elongated heated wire (heating element 15) (see Figure 3), the at least one blade (46) being situated and configured to cut the hair which has been heated by the heated wire (heating element 15; column 3, line 52 - column 4, line 18; column 6, lines 28-44).

With respect to the limitations of claim 5, Iderosa discloses the elongated heated wire (heating element 15) being heated to a temperature sufficient to soften hair when the apparatus is brought into contact with a skin surface (column 3, line 52 - column 4, line 18; column 6, lines 28-44). Therefore, Iderosa fully meets "wherein said elongated

heated wire is heated when said cutting head comes in contact with a skin surface" given its broadest reasonable interpretation.

With respect to the limitations of claim 22, Iderosa discloses the elongated heated wire (heating element 15) and blade (46) being in a "side-by-side" configuration (see Figure 3). Therefore, Iderosa fully meets "including juxtaposing the wire and the blade in a generally parallel configuration" given its broadest reasonable interpretation.

With respect to the limitations of claim 23, Iderosa discloses the method including first moving the heated wire (heating element 15) and then the blade (46) across the skin (see arrow 38 in Figure 3; column 3, line 52 - column 4, line 18; column 6, lines 28-44).

With respect to the limitations of claims 24 and 25, Iderosa discloses the elongated heated wire (heating element 15) preheating (Abstract) and softening the hair (column 3, line 52 - column 4, line 18; column 6, lines 28-44) and the blade (46) being used to cut the hair.

With respect to the limitations of claims 28 and 29, Iderosa discloses the elongated heated wire (heating element 15) being heated to a temperature sufficient to soften hair when the apparatus is brought into contact with a skin surface (column 3, line 52 - column 4, line 18; column 6, lines 28-44). Therefore, Iderosa fully meets "wherein said elongate wire is heated when said cutting head comes in contact with a skin surface" given its broadest reasonable interpretation.

Iderosa discloses all of the limitations of the claimed invention, as previously set forth, except for the wire being heated to a temperature of at least 50°C, a temperature

higher than 100°C, a temperature higher than 150°C, a temperature higher than 250°C, a temperature higher than 350°C, a temperature higher than 500°C, or a temperature higher than 700°C; a motion detector adapted to detect motion of the hair cutting head on the skin surface; burning of the skin being prevented by one or more of heating the wire only when motion is detected and removal of the wire from skin contact when motion is not detected; a row of skin depressing elements on at least one side of the elongated heated wire; a row of skin depressing elements on both sides of the elongated heated wire; and the elongated heated wire having a diameter between 10 to 1000 micrometers.

However heating a piece of hair to at least 50°C, a temperature higher than 100°C, a temperature higher than 150°C, a temperature higher than 250°C, a temperature higher than 350°C, a temperature higher than 500°C, or a temperature higher than 700°C is known in the art. Solvinto, for example, teaches a cutting apparatus having one blade carrying a metal wire or strip which is heated to a temperature of between 700 and 1000 °C. Solvinto also discloses the wire being in the range of 0.1 and 0.8 mm (page 5-6; English translation) as well as the metal wire or blade being electrically heated by alternating current or from a battery. In addition, Ringler et al. teach a heating element that is heated to a temperature of from about 400 to about 1000°F (equivalency being from about 204.4 to about 537°C) (Abstract; page 2, paragraph 27; page 4, paragraph 48, pages 4-5, claims 2-4, 17-19). Ringler et al. further teach the advantage such a configuration provides a means to heating a hair

follicle to such a temperature for fusing and sealing the cuticle, cortex and medulla layers of the hair shaft.

Similarly, a motion detector adapted to detect motion of the hair cutting head on the skin surface and burning of the skin being prevented by one or more of heating the wire only when motion is detected and removal of the wire from skin contact when motion is not detected is known in the art. Shalev et al., for example, teach a motion detector (detectors 1070/1062 with either optical, 1020, or mechanical, 1064, means of detecting motion/velocity; page 17, line 26 – page 20, line 14) that provides power to the heating element when motion/velocity is detected (page 6, lines 27-32; page 7, line 18 – page 8, line 7; page 17, line 26 – page 20, line 14; page 23, lines 14-32).

In addition, a pair of equally spaced skin depressing elements comprising rows of skin depressing side elements on each side of the heat generator and the elongated heated wire having a diameter between 10 to 1000 micrometers is known in the art. Shalev et al., for example teach two skin depressor rows (1112, 1116), one on each side of heating element 1114 (page 20, line 15 – page 22, line 20; see Figure 11B). In addition, Shalev et al. teach the heating element preferably having a diameter of 0.070 mm, as well as potentially a diameter of 0.02 mm or less, or 0.5 mm or more (page 12, line 30 – page 13, line 3; page 21, lines 10-12).

Furthermore, Shalev et al. teach that such a configuration provides a means to utilize applied heat in a hair removal process without damaging the skin (page 1, lines 7-8; page 2, lines 14-33; whole document).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Solvinto with the heating of the wire when motion is detected by a motion detector; skin depressing elements on either side of the heating element; and the heating element having a diameter between diameter between 10 to 1000 micrometers of Shalev et al. in order to provide a means to prevent damage to the skin when utilize a heating application in a shaving system.

Therefore, in view of Solvinto, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the heating element of Iderosa with the carrying a metal wire or strip which is heated to a temperature of between 700 and 1000 °C, since as evidenced by Ringler et al., such a temperature range provides a means to heating a hair follicle to such a temperature for fusing and sealing the cuticle, cortex and medulla layers of the hair shaft, thereby increasing the efficiency of the hair cutting apparatus. Similarly, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Iderosa with the heating of the wire when motion is detected by a motion detector; skin depressing elements on either side of the heating element; and the heating element having a diameter between diameter between 10 to 1000 micrometers of Shalev et al. in order to provide a means to prevent damage to the skin when utilizing a heating application in a hair removal system.

With respect to the limitations of claim 12, Iderosa discloses the heating element (15) heating to a temperature sufficient to soften hair before the hair is cut by the blade (46). Solvinto, as evidenced by Ringler et al., teach a temperature that is associated with cutting hair in order to completely fuse and seal and hair follicle. It is known in the

art that hair tends to typically be substantially in the range 100 microns. However, it is physically impossible for all of the hair follicles to be equivalent in thickness. Therefore since some of the relatively thin hair follicles would be not only be softened but would potentially be cut in lieu of the temperature ranges taught by Solvinto and Ringer et al., it is deemed that Iderosa in view of Solvinto and Ringer et al. would provide a wire heated to a temperature high enough to at least cut some of the relatively thin hairs. Therefore, Iderosa in view of Solvinto and Ringer et al. fully meets "said wire is heated to a temperature high enough so that it cuts at least some of the hair before the hair comes into contact with said blade, when the heated wire and blade are drawn across the skin" given its broadest reasonable interpretation.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **STEPHEN J. RALIS** whose telephone number is (571)272-6227. The examiner can normally be reached on Monday - Friday, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen J Ralis/
Primary Examiner, Art Unit 3742

Stephen J Ralis
Primary Examiner
Art Unit 3742

SJR
February 27, 2010